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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,665	09/15/2001	Brian Stewart Hoyle	7418-2	7030

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[REDACTED] EXAMINER

WONG, ALBERT KANG

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2635

DATE MAILED: 08/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/831,665	HOYLE ET AL. <i>(Signature)</i>	
	<b>Examiner</b>	<b>Art Unit</b>	
	Albert K Wong	2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 15 September 2001.

2a) This action is FINAL.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 9/15/2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_ .

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

Art Unit: 2635

1. This Office action is in response to the application filed September 15, 2001. Claims 1-22 are pending. Claims 1-8, 11, 13, 18, and 20-22 have been amended as requested.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10, 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spillman in view of Tokyo Gas Co. (08233844).

Regarding claim 1, Spillman teaches a body (item A) which may be a vessel that includes a sensor (item 14) with conductors for connecting the sensor to an output through which signals are transmitted which are representative of the conditions within the vessel. Spillman teaches that a sensor array is contemplated but does not explicitly teach a sheet. Tokyo Gas Co. (08233844) teaches a array of sensor with conductors for measuring temperature in sheet form. It would have been obvious to one of ordinary skill in the art that any suitable sensor maybe combined with the communication device in Spillman to generate a signal indicative of the temperature within the vessel. A sensor array provides an integrated unit that is able to sense data over a wide area and still be easily attached to the body.

Regarding claim 2, the array in Tokyo is laminar with conductors on an insulating substrate.

Regarding claim 3, it would have been obvious to include an insulating layer to protect the conductive elements from being shorted out.

Regarding claims 4 and 6, the sheet is flexible.

Regarding claim 5, it would have been obvious to include an insulating layer to protect the sensors from being shorted out.

Regarding claim 7, see Figure in Tokyo.

Regarding claim 8, the first monitoring unit is shown in Figure 9B and the second monitoring unit is described in the specification but not explicitly shown.

Regarding claims 9-10, see col. 3 of Spillman.

Regarding claim 14, the transmission signals in Spillman are radio signal. It is disclosed that the vessel may be carbon fiber which would be transparent to radio waves.

Regarding claim 22, the first and second units have been discussed above in Spillman. Spillman does not disclose a sheet sensor but suggests that a variety of sensors may be used. The sensor in Tokyo is a sheet. It would have been obvious to use a sheet to allow the sensor contact with the body wall.

4. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spillman and Tokyo as applied to claim 8 above, and further in view of Sonderegger.

Regarding claim 11, Spillman does not teach a window or the transmission of optical signals. Sonderegger teaches a telemetry system with a first and second unit like Spillman that uses a sensor array. The system transmits data through the vessel wall using optical transmission signals. It would have been obvious to one of ordinary skill in the art that various transmission method may be used to transmit signals through bodies. Optical signals allows higher bandwidths and are not sensitive to radio interference.

Regarding claim 12, Sonderegger teaches the use of a laser in col. 3.

Regarding claim 13, Sonderegger teaches the use of light but does not specify infra-red.

One of ordinary skill in the art would know that infra-red is often used to transmit optical signals.

It would have been obvious to use infra-red to create a simple cheap system.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 15-17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Spillman.

Regarding claim 15, Spillman discloses the first and second monitoring unit which has been discussed above. The system is used to monitor the enclosed space in a body.

Regarding claim 16, the system in Spillman transmits a signal outside the vessel which is picked up by the first unit to supply power to the unit.

Regarding claim 17, the unit in Spillman includes an antenna that is sensitive to a particular frequency.

Regarding claim 21, Spillman uses radio telemetry signals which are transparent in a carbon fiber body.

7. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spillman as applied to claim 15 above, and further in view of Sonderegger.

Regarding claim 18, Sonderegger teaches a window and the transmission of optical signals through the window to a second unit. See discussion in claim 11.

Art Unit: 2635

Regarding claim 19, Sonderegger teaches the use of a laser. See discussion above in claim 12.

Regarding claim 20, see discussion in claim 13 above.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wauer teaches the use of passive transponders on a vessel. Anders teaches the use of passive transponders on a variety of devices.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert K Wong whose telephone number is 703-305-8884. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.



Albert K. Wong  
August 15, 2003